

Name: _____

Date: _____

Factoring: Difference of Two Squares**Directions: Factor each polynomial using the difference of two squares trick.******Remember: You may need to factor out a GCF first! Follow the example.***

1. $16x^2 - 4$ <i>I recognize that both $16x^2$ and 4 are squares, and there is a subtraction sign - so, difference of two squares. I take the square root of each and write the binomials with opposite signs.</i> $(4x - 2)(4x + 2)$ <i>I can check my work via FOIL - checkmark, smiley face!</i>	2. $y^2 - 25$
3. $100g^2 - 81$	4. $36j^2 - 48$
5. $50y^2 - 32$	6. $9h^4 - 64$
7. $121k^4 - 1$	8. $16b^2 - 25c^2$
9. $200m^2 - 161n^2$	10. $4d^2 - 1$

Mixed Factoring Review: Factoring Quadratic Trinomials (Remember - a|c chart!)

11. $a^2 + 11a + 24$	12. $12g^2 + 16g - 3$
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Factoring Polynomials with Four Terms by GROUPING**Directions: Factor each polynomial via the GROUPING method.******Remember to remove the ULTIMATE GCF first, if possible. Follow the example.***

<p>1. $9x^3 - 45x^2 + 4x - 20$ <i>First, group the first two terms and second two terms together. Find the GCF of each set of terms.</i></p> <p>$9x^2(x - 5) + 4(x - 5)$ <i>Now, your GCFs will do a joint attack on the remaining binomial. Remember, since the binomial is the same, we only need to write it once.</i></p> <p>$(9x^2 + 4)(x - 5)$ <i>We can check our work via FOIL. Checkmark, smiley face!</i></p>	<p>2. $6y^3 - 8y^2 - 21y + 28$</p>
<p>3. $60g^3 + 25g^2 + 36g + 15$</p>	<p>4. $12a^3 + 66a^2 + 2a + 11$</p>
<p>5. $10b^3 - 40b^2 + 3b - 12$</p>	<p>6. $108r^4 + 12r^3 + 90r^2 + 10r$</p>

Mixed Factoring Review: Factoring Quadratic Trinomials (Remember - a|c chart!)

<p>7. $x^2 + 3x + 2$</p>	<p>8. $25t - 9 + 6t^2$</p>
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